



UNITED STATES DEPARTMENT OF COMMERCE

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
09/763,877	02/28/01	WAJS	A 82032-0006

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EXAMINER

KIM, A

ART UNIT PAPER NUMBER

2876

DATE MAILED: 09/26/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

09/763,877

Applicant(s)

WAJS, ANDREW AUGUSTINE

Examiner

Ahshik Kim

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Prelim. Amdt./Amendment

1. Receipt is acknowledged of the Preliminary Amendment filed 28 February 2001.

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Priority

2. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

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Specification

3. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The following title is suggested: FPGA integrated device and security system.

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4. This application does not contain an abstract of the disclosure as required by 37 CFR 1.72(b). An abstract on a separate sheet is required.

5. Applicant(s) are reminded to include the following in the next communication with respect to the header(s) within the specification as following:

20

- a) -- **Background of the Invention** --: The specification should set forth Background of the Invention in two parts: --**Field of the Invention** -- and -- **Description of the Related Art** --.

- b) -- **Brief Summary of the Invention** --.

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c) -- **Brief Description of the Several Views of the Drawing(s)** --.

d) -- **Detailed Description of the Invention** --.

Appropriate correction is required.

5

Drawings

6. The drawings are objected to because it is not labeled appropriately (i.e., Fig. 1 for the main drawing). Further, all the reference numbers in Fig. 1 (i.e., blank boxes 1 - 5) should be labeled accordingly. Correction is required.

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Claim Objections

7. Claim 2 is objected to because of the following informalities:

Re claim 2, line 3: Substitute "FPGA" with -- field programmable gate array (FPGA) --.

Appropriate correction is required.

15

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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8. Claims 1 – 10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

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Regarding claim 1, line 2, the phrase "or the like" renders the claim(s) indefinite because the claim(s) include(s) elements not actually disclosed (those encompassed by "or the like"), thereby rendering the scope of the claim(s) unascertainable. See MPEP § 2173.05(d).

Appropriate correction is required.

5

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

10 (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

15

9. Claims 1 – 4 and 6 – 8 are rejected under 35 U.S.C. 102(e) as being anticipated by Hazama (US 6,089,460).

20

Re claims 1 - 4, Hazama teaches a security system comprising an IC card 1 with EEPROM 1b, FPGA (Field Programmable Gate Array) 20 utilizing SRAM (Static Random Access Memory), (col.3, lines 33 – 51).

Re claims 6 – 8, Interacting with the external device 100, IC card 1 cipher/decipher security information (col. 1, lines 28 – 36; col. 10, line 64 – col. 11, line 2). Hazama further teaches that identification is etched in non-volatile memory (col. 1, lines 37 – 41).

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Claim Rejections - 35 USC § 103

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The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

5 (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10 10. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hazama (US 6,089,460) in view of Tanaka (US 4,924,075). The teachings of Hazama have been discussed above.

Hazama fails to specifically teach or fairly suggest that FPGA in IC card is stored in battery-powered RAM.

15 Tanaka teaches a smart card 1 powered by internal battery 6 (col. 1, line 67 – col.2, line 10).

In view of Tanaka's teaching, it would have been obvious to an ordinary skill in the art at the time the invention was made to employ well-known internal battery to the teachings of Hazama in order to make the card versatile. By powering the card with internal battery, the card
20 can be used with external device which does not carry power supply. Accordingly, such modification would have been an obvious extension as taught by Hazama, and therefore an obvious expedient.

11. Claims 9 - 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hazama
25 (US 6,089,460) in view of Cantone et al. (US 5,594,657). The teachings of Hazama have been discussed above.

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Hazama fails to specifically teach or fairly suggest of synthesizing, layout and use of high-level language as a method of programming FPGA.

Cantone teaches that FPGA can be programmed utilizing synthesis (col. 1, line 62 – col. 2, line 7) and layout tool (col. 16, lines 7 – 18). Cantone further teaches of programming FPGA
5 with user-friendly graphics interface (high level language), and the program is compiled to produce efficient executable (Abstract).

In view of Tanaka's teaching, it would have been obvious to an ordinary skill in the art at the time the invention was made to employ well-known method of FPGA programming to the teachings of Hazama in order to make the programming easier to the users. Further, by
10 compiling/optimizing the source code, generated executables will run faster, and the executable code can be ported to other FPGA, and thus an obvious expedient.

Conclusion

I. The prior art made of record and not relied upon is considered pertinent to applicant's
15 disclosure: Henry et al. (US 5,774,058); Bjorn et al. (US 6,125,192); Beuk et al. (US 5,446,266); Bialick et al. (US 6,003,135) disclose IC cards and FPGA programming methods.

II. Any inquiry concerning this communication or earlier communications from the examiner should be directed to *Ahshik Kim* whose telephone number is (703)305-5203. The
20 examiner can normally be reached between the hours of 6:00AM to 3:00PM Monday thru Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael G. Lee, can be reached on (703) 305-3503. The fax phone number for this Group is (703)308-7722, (703)308-7724, or (703)308-7382.

Communications via Internet e-mail regarding this application, other than those under 35 U.S.C. 132 or which otherwise require a signature, may be used by the applicant and should be addressed to [ahshik.kim@uspto.gov].

All Internet e-mail communications will be made of record in the application file. PTO employees do not engage in Internet communications where there exists a possibility that sensitive information could be identified or exchanged unless the record includes a properly

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signed express waiver of the confidentiality requirements of 35 U.S.C. 122. This is more clearly set forth in the Interim Internet Usage Policy published in the Official Gazette of the Patent and Trademark on February 25, 1997 at 1195 OG 89.

- 5 Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0956.




Ahshik Kim

10 Patent Examiner

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September 14, 2001



MICHAEL G. LEE
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TECHNOLOGY CENTER 2800